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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,019

06/26/2003

Richard K. Cooper

51687-0101 (287015)

8431

23370

7590

05/12/2006

JOHN S. PRATT, ESQ  
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ATLANTA, GA 30309

EXAMINER

SINGH, ANOOP KUMAR

ART UNIT

PAPER NUMBER

1632

DATE MAILED: 05/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/609,019	COOPER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anoop Singh	1632	

All participants (applicant, applicant's representative, PTO personnel):

- (1) Anoop Singh. (3) John McDonald, Cynthia Rothschild.  
 (2) Peter Paras, Jr. (4) Richard Cooper, William Fioretti.

Date of Interview: 02 May 2006.

Type: a) ☐ Telephonic b) ☐ Video Conference  
 c) ☒ Personal [copy given to: 1) ☐ applicant 2) ☒ applicant's representative]

Exhibit shown or demonstration conducted: d) ☒ Yes e) ☐ No.

If Yes, brief description: Proposed amended claims were presented as exhibit for discussion..

Claim(s) discussed: those of record.

Identification of prior art discussed: that of record.

Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The rejections of record were discussed, Applicants will consider submitting arguments to and/or amendments addressing the rejection of record.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

**PETER PARAS, JR.**  
**PRIMARY EXAMINER**

*Peter Paras Jr* 5721635

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

\_\_\_\_\_  
 Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

TGRX 0101

Claims for Discussion at Interview  
U.S. Patent Appln. 10/609,019  
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: )  
 )  
 **COOPER, ET AL.** )  
 ) **Art Unit: 1632**  
 Serial No. 10/609,019 )  
 ) **Examiner: Peter Paras, Jr.**  
 Filed: June 26, 2003 )  
 )  
 For: **GENE REGULATION IN** )  
 **TRANSGENIC ANIMALS USING A** )  
 **TRANSPONON-BASED VECTOR** )

**CLAIMS FOR DISCUSSION AT INTERVIEW**

The following amended claims are submitted as a basis for discussion during a telephone interview to be held on Tuesday May 2, 2006. A marked set and a clean set of claims is submitted herewith for the Examiner's consideration. These claims are not to be filed in the case at this time.

Respectfully submitted,

Date: 4-28-2006

  
Cynthia B. Rothschild (Reg. No. 47,040)

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TGRX 0101

Claims for Discussion at Interview  
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**Marked Set of Amended Claims**

1. (Currently amended) A vector comprising:
  - a) a transposase gene operably linked to a first promoter; ~~and~~
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase; and
  - d) wherein a nucleic acid sequence linking the first promoter to the transposase gene comprises a ~~modified~~ Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and,
  - e) further comprising at least two stop codons operably-linked to the transposase gene.
2. (Currently amended) The vector of claim 1, wherein at least one of the first to twenty codons at a beginning of the transposase gene are modified by changing a nucleotide at a third base position of the codon to an adenine or thymine without modifying the amino acid encoded by the codon, to provide a vector comprising an increase in transposase transcription as compared to an unmodified transposase gene.
3. (Currently amended) The vector of claim ~~[[1]]~~ 2, wherein the transposase gene is modified in ~~its~~ each of the first ten codons of the transposase gene.
4. (Original) The vector of claim 1, wherein the transposase is a Tn10 transposase.
5. (Original) The vector of claim 1, wherein the first promoter is a constitutive promoter.

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6. (Original) The vector of claim 1, wherein the first promoter is an inducible promoter.
7. (Original) The vector of claim 6, wherein the inducible promoter is an ovalbumin promoter or a vitellogenin promoter.
8. (Original) The vector of claim 1, wherein one gene of interest is operably-linked to a second promoter.
9. (Original) The vector of claim 8, wherein the second promoter is a constitutive promoter.
10. (Original) The vector of claim 8, wherein the second promoter is an inducible promoter.
11. (Original) The vector of claim 10, wherein the inducible promoter is an ovalbumin promoter or a vitellogenin promoter.
12. (Original) The vector of claim 1, further comprising a polyA sequence operably-linked to the transposase gene.
13. (Original) The vector of claim 12, wherein the polyA sequence is a conalbumin polyA sequence.
14. (Canceled) The vector of claim 1 or claim 12, further comprising two stop codons operably-linked to the transposase gene.
15. (Original) The vector of claim 1, wherein a first gene of interest is operably-linked to a second promoter and a second gene of interest is operably-linked to a third promoter.
16. (Original) The vector of claim 1, wherein a first and a second gene of interest are operably-linked to a second promoter.

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17. (Original) The vector of claim 1, further comprising an enhancer operably-linked to the one or more genes of interest.
18. (Original) The vector of claim 17, wherein the enhancer comprises at least a portion of an ovalbumin enhancer.
19. (Original) The vector of claim 1, further comprising an egg directing sequence operably-linked to the one or more genes of interest.
20. (Original) The vector of claim 19, wherein the egg directing sequence is an ovalbumin signal sequence or an ovomucoid signal sequence.
21. (Original) The vector of claim 19, wherein the egg directing sequence is a vitellogenin targeting sequence.

**Claims 22-51 (Withdrawn)**

52. (New) A vector comprising:
- a) a transposase gene operably linked to a first promoter;
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase;
  - d) wherein a nucleic acid sequence linking the first promoter to the transposase gene comprises a Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and,
  - e) wherein at least one of the first twenty codons of the transposase gene are modified by changing a nucleotide at a third base position of the codon to an adenine or thymine without modifying the amino acid encoded by the codon, to provide a vector comprising an increase in transposase transcription as compared to an unmodified sequence.

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53. (New) A vector comprising:
- a) a transposase gene operably linked to a first promoter;
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase;
  - d) wherein a nucleic acid sequence linking the first promoter to the transposase gene comprises a Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and,
  - e) wherein the first promoter comprises at least one of a vitellogenin or an ovalbumin promoter.



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Claims for Discussion at Interview  
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**Clean (Unmarked) Set of Amended Claims**

1. (Currently amended) A vector comprising:
  - a) a transposase gene operably linked to a first promoter;
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase;
  - d) wherein the nucleic acid sequence linking the first promoter to the transposase gene comprises a Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and
  - e) further comprising at least two stop codons operably-linked to the transposase gene.
2. (Currently amended) The vector of claim 1, wherein at least one of the first twenty codons of the transposase gene are modified by changing a nucleotide at a third base position of the codon to an adenine or thymine without modifying the amino acid encoded by the codon, to provide a vector comprising an increase in transposase transcription as compared to an unmodified transposase gene.
3. (Currently amended) The vector of claim 2, wherein the transposase gene is modified in each of the first ten codons of the transposase gene.
4. (Original) The vector of claim 1, wherein the transposase is a Tn10 transposase.
5. (Original) The vector of claim 1, wherein the first promoter is a constitutive promoter.
6. (Original) The vector of claim 1, wherein the first promoter is an inducible promoter.

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7. (Original) The vector of claim 6, wherein the inducible promoter is an ovalbumin promoter or a vitellogenin promoter.
8. (Original) The vector of claim 1, wherein one gene of interest is operably-linked to a second promoter.
9. (Original) The vector of claim 8, wherein the second promoter is a constitutive promoter.
10. (Original) The vector of claim 8, wherein the second promoter is an inducible promoter.
11. (Original) The vector of claim 10, wherein the inducible promoter is an ovalbumin promoter or a vitellogenin promoter.
12. (Original) The vector of claim 1, further comprising a polyA sequence operably-linked to the transposase gene.
13. (Original) The vector of claim 12, wherein the polyA sequence is a conalbumin polyA sequence.
14. (Canceled) The vector of claim 1 or claim 12, further comprising two stop codons operably-linked to the transposase gene.
15. (Original) The vector of claim 1, wherein a first gene of interest is operably-linked to a second promoter and a second gene of interest is operably-linked to a third promoter.
16. (Original) The vector of claim 1, wherein a first and a second gene of interest are operably-linked to a second promoter.
17. (Original) The vector of claim 1, further comprising an enhancer operably-linked to the one or more genes of interest.

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18. (Original) The vector of claim 17, wherein the enhancer comprises at least a portion of an ovalbumin enhancer.
19. (Original) The vector of claim 1, further comprising an egg directing sequence operably-linked to the one or more genes of interest.
20. (Original) The vector of claim 19, wherein the egg directing sequence is an ovalbumin signal sequence or an ovomucoid signal sequence.
21. (Original) The vector of claim 19, wherein the egg directing sequence is a vitellogenin targeting sequence.

Claims 22-51 (Withdrawn)

52. (New) A vector comprising:
- a) a transposase gene operably linked to a first promoter;
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase;
  - d) wherein a nucleic acid sequence linking the first promoter to the transposase gene comprises a Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and,
  - e) wherein at least one of the first twenty codons of the transposase gene are modified by changing a nucleotide at a third base position of the codon to an adenine or thymine without modifying the amino acid encoded by the codon, to provide a vector comprising an increase in transposase transcription as compared to an unmodified sequence.

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53. (New) A vector comprising:
- a) a transposase gene operably linked to a first promoter;
  - b) one or more genes of interest operably-linked to one or more additional promoters;
  - c) wherein the one or more genes of interest and their operably-linked promoters are flanked by transposase insertion sequences recognized by the transposase;
  - d) wherein a nucleic acid sequence linking the first promoter to the transposase gene comprises a Kozak sequence, the Kozak sequence comprising the nucleotide sequence of SEQ ID NO: 13, ACCATG, and wherein the Kozak sequence is positioned such that a portion of the Kozak sequence encodes for a portion of the amino end of the transposase protein; and,
  - e) wherein the first promoter comprises at least one of a vitellogenin or an ovalbumin promoter.

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